3.0 ENVIRONMENTAL IMPACTS AND MITIGATION

Environmental impacts of the proposed Veronica Meadows Specific Plan are classified in the categories shown below.

Class I – Significant and Unmitigable Impact. An impact that cannot be avoided or reduced below the level of significance given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved.

Class II – Significant but Mitigable Impact. An impact that is potentially significant, but that can be reduced to below the significance level given reasonably available and feasible mitigation measures. Such an impact requires CEQA Findings to be made if the project is approved.

Class III – Less than Significant Impact. An impact that may be adverse, but does not exceed the significance level and does not require mitigation measures under CEQA. However, mitigation measures that could further lessen the minor adverse impacts may be recommended, if available and feasible.

Class IV – Beneficial Impact. An effect that would reduce an existing environmental problem or hazard.

Note: CEQA Guidelines 15126(c) requires that an EIR identify "*significant irreversible environmental changes which would be involved in the proposed project should it be implemented.*" This EIR does not include a specific section for irreversible changes. However, permanent and long-term impacts of the project are fully described in the issue subsections of the EIR, and are distinguished from temporary or short-term effects.

Note: Sections 3.1, 3.2, and 3.4 through 3.12 of the EIR require no substantial revisions, and are not reproduced here.

3.3 BIOLOGICAL RESOURCES

3.3.1 Existing Conditions

3.3.1.1 Data Sources

The following characterization of the biological resources at the project site was based on information from previous biological investigations conducted by consultants for the applicant, which are listed below, and independent field investigations by URS biologists during the preparation of the EIR (March through June 2004).

- General habitat, vegetation, and rare plant surveys by Rachel Tierney in 1994, 1996, 1999, and 2000. (Rachel Tierney Consulting, 2000).
- Literature review and field surveys for aquatic species in Arroyo Burro Creek, particularly for red-legged frog and tidewater goby by Larry Hunt (1999) and Paul Collins (1999)
- Assessment of potential butterfly habitat at the project site by Althouse and Meade (2000)

The URS field investigations included detailed vegetation mapping of the project site, development of a plant species list, surveys for raptor nests, early morning bird surveys, aquatic habitat surveys, and field investigations to confirm previous conclusions about the absence of monarch butterflies, red-legged frog, steelhead trout, and tidewater goby.

3.3.1.2 Setting and Summary of Key Biological Resources

The project site consists of undeveloped open space that is contiguous with other extensive open space along Arroyo Burro Creek and on the steep hillsides west of the project site (Figure 2-4). The site includes four primary landforms which are listed below:

- Steep hillsides on the western boundary of the site where no development would occur
- A highly disturbed alluvial fan in the center of the site where most of the development would occur
- Several stream terraces along the west side of Arroyo Burro Creek with varying widths and elevations above the creek
- Highly incised creek channel, often with very steep eroding banks

A well-defined floodplain is not present at the project site due to the incised nature of the creek channel and the moderately sloped alluvial fan on the west side of the creek.

The steep hillsides on the west side of the project site contain a low and dense cover of coastal sage scrub with very few trees or large shrubs. Only a few scattered pepper, oak, and willow trees are present on the slopes. However, a very large eucalyptus grove occurs at the base of the slopes where a major drainage from Campanil Hill is located. The alluvial fan in the center of the site is highly disturbed from past and present ground disturbing activities. In recent years, this area has been

modified for motorcycle and bicycle tracks and ramps; as such, it is dominated by bare dirt and weeds. The creek channel and adjacent stream terraces contain a very dense mixture of native riparian trees and shrubs, ornamental trees, and noxious weeds (e.g., German ivy, castor bean, and giant reed).

The most valuable biological resources at the project site are fourfold:

- Riparian Habitat along the Creek Corridor. The creek corridor contains dense riparian cover that supports a high diversity and abundance of wildlife species compared to upland habitats at the project site. In addition, the creek channel and adjacent terraces with dense plant cover provide a corridor for aquatic species and wildlife to move between the lower and upper reaches of the creek and Arroyo Burro watershed.
- Aquatic Habitat in Arroyo Burro Creek. The perennial flows in Arroyo Burro Creek provide important habitat for aquatic insects, invertebrates, amphibians, and fish in a semi-arid environment. The year-round flows also contribute to the high productivity of the riparian trees and shrubs at the project site.
- Tree Resources. The high number and variety of native and ornamental trees at the project site (mostly within and along the margins of the creek corridor) provide roosting, perching, and foraging habitat for various birds and raptors (native and introduced species) that are adapted to undeveloped areas, as well as urban settings.
- Avian Habitat. The diversity of birds at the site appears to be moderate to high because of the mosaic of diverse habitats at the site - mature riparian woodland, coastal sage scrub, weedy grassy areas, barren dirt areas, and scattered oak, eucalyptus, and ornamental shrubs and trees.

The project site does not contain pristine examples of native habitats. The site has been highly disturbed over the years from prior development and operation of the water company (1880s – 1940s), and unregulated uses of the open space for recreation over the past 30 to 40 years.

The project site does not support any state or federal endangered species, nor provide significant habitat for any species of special interest, as described below.

The large eucalyptus grove at the head of the alluvial fan is a dominant habitat feature at the project site similar to the creek corridor. However, the grove does not provide any special or highly productive biological functions.

In general, the steep scrub-covered slopes and the highly disturbed center of the site support a low diversity and abundance of wildlife. However, during the spring and early summer, there is a high diversity of breeding birds, some of which are migrants, in the adjacent riparian habitats at the project site. Resident wildlife in scrub includes deer mouse, cottontail rabbit, coyote, skunk, and feral cat. In this region, grassland is the primary foraging habitat for raptors; however, scrub habitat provides some raptor foraging opportunities as well.

The site is subject to ongoing disturbances which include jogging, dog walking, outdoor games, and motorcycle racing and off-road traversing. In addition, the center of the site and the main trail are periodically cleared or mowed for fire abatement. These ongoing disturbances reduce the quality of the upland portions of the site for wildlife.

The project site is one of several large open spaces in the Arroyo Burro watershed. The site is bounded on the north, west, and east by similar open space. Riparian habitat along Arroyo Burro Creek is well developed above and below the project site. Very large expanses of scrub-covered hills, similar to those at the project site, are present on the other side of Las Positas Road at Elings Park. The site does not represent a unique refuge or habitat area in the watershed.

3.3.1.3 Habitat Types

Habitat types at the project site include ruderal vegetation with scattered ornamental trees, a eucalyptus grove, willow woodland along Arroyo Burro Creek, coastal sage scrub and chaparral along the western project boundary slopes, and coyote brush scrub along the east side of Arroyo Burro Creek. A description of the individual habitat types is provided below. The distribution of the habitat types is shown on Figure 3-11.

Ruderal Vegetation and Ornamentals

The center of the site is dominated by ruderal vegetation consisting of cheese weed, black mustard, Italian thistle, fennel, bristly ox-tongue, poison hemlock, wild radish, castor bean, and non-native grasses such as smilo grass and ripgut brome. There are many ornamental trees scattered throughout the site, including eucalyptus, California pepper, black acacia, silk oak, Canary Island palm, olive, and Monterey cypress.

Eucalyptus

A eucalyptus grove is located at the western tip of the project area. It contains very large trees with a sparse understory. Understory species include geranium, sour grass, fennel, nasturtium, poison hemlock, cheese weed, black mustard, horehound, ripgut brome, milk thistle, and Italian thistle ,with a few native species such as California everlasting, morning glory, poison oak, coast live oak, elderberry, mugwort, and Douglas nightshade. There are several very large eucalyptus trees located along Arroyo Burro Creek, both within and outside the boundaries of the project site.

Riparian Willow Woodland

The banks and stream terraces along Arroyo Burro Creek support willow woodland with large patches of invasive species, predominately giant reed and German ivy, with a few scattered eucalyptus, elderberry, western sycamore, and coast live oak trees along the banks. Other invasive species along the banks of the creek include nasturtium, periwinkle, and ice plant. Native riparian understory species along the banks and adjacent uplands include California rose, poison oak, Douglas nightshade, giant wild rye, blackberry, California barley, wild cucumber, California everlasting, coyote brush, and morning glory. In general, the native understory vegetation on the banks has been almost entirely displaced by invasive and non-native vines (nasturtium and German ivy). The

stream terraces and adjacent uplands near the creek contain many of these native understory species, as well as invasive ruderal species such as castor bean, black mustard, cheese weed, poison hemlock, milk thistle, Italian thistle, nasturtium, periwinkle, smilo grass, and German ivy.

Coastal Sage Scrub and Chaparral

The hills on the western side of the project site contain coastal sage scrub dominated by giant wild rye, California sagebrush, coyote brush, and morning glory with scattered black mustard, poison hemlock, fennel and ripgut brome. The slopes also include patches of chaparral dominated by lemonade berry, toyon, redberry, and elderberry.

Coyote Brush Scrub

The stream terraces on the east side of Arroyo Burro Creek, between the creek and Las Positas Road, are dominated by coyote brush scrub with patches of ruderal vegetation and scattered palm trees. Ruderal vegetation in this area includes similar species to the ruderal vegetation west of Arroyo Burro Creek.

3.3.1.4 Aquatic Habitats

Arroyo Burro Creek contains year-round flow due to natural bank seepage from the lower watershed. Hence, aquatic habitat is present during the summer and fall when most creeks on the South Coast are dry. Most of the spring and summer aquatic habitat in Arroyo Burro Creek at the project site consists of long pools that are on average about 20 feet wide and 0.5 to 2 feet deep. There are occasional riffles and runs generally 10 to 15 feet wide and range from 2 to 6 inches deep. Creek flow varies, but is typically 2 to 5 cfs in the summer. The distribution of aquatic habitats in the creek at the project site is shown on Figure 3-12a.

The pools that are present in the creek at the project site have sandy substrates with a small amount of gravel. Riffles and runs generally have gravel and cobble substrate. There are a few small sandbars along the edges of the creek. Only one or two pieces of large woody debris were observed in the creek and there are no large boulders. In the middle section of the reach, there are old rusted pipes and pieces of concrete in the channel bottom. There are no barriers to fish passage along this stretch of the creek, although there are several impassable fish barriers located downstream of the project site.

The following is a description of the major pools from the upstream end to the downstream end of the project site (Figure 3-12a). There is a long shallow pool at the north end of the site with dense overhanging giant reed and willows on both sides. The second pool downstream of the north end is long and deep with dense overhanging vegetation on the west bank and a steep eroded east bank with several burrows. There is one very large deep pool that is about 4 feet deep with dense overhanging willows on the west bank and a steep eroding east bank containing several burrows. There is a long series of pools ranging in width from 10 to 20 feet and depth from 0.5 to 2.5 feet with dense overhanging vegetation on both banks. The pool on the southern end of the reach has overhanging vegetation on the west bank and a steep non-vegetated east bank and has one of the only major sandbars within the project reach. This pool and the 4-foot deep pool provide suitable

habitat with exposed sandbars and mud banks that the southwestern pond turtle can use for basking and burrows.

The dominant vegetation on the creek banks at the project site is giant reed, mixed with arroyo willow and a few scattered coast live oak and sycamore trees. Giant reed is rapidly expanding along the creek, displacing native willows and riparian understory. There is very little emergent vegetation in the creek bed because of the effects of winter stream flows, and the scarcity of oxbows and shallow marshy bank areas. There is one large riffle about 20 feet wide and 6 inches deep that is completely vegetated with watercress (*Rorippa nasturtium-aquaticum*) and a small patch of cattails (*Typha* sp.).

There are five areas along the eastern bank were there is significant erosion due to steep non-vegetated slopes. These eroded, 90-degree slopes reach about 15 feet above the bottom of the creek. The west bank has more gradual 45-degree slopes with some slightly steeper areas and, due to dense vegetation on this side of the creek, there are fewer erosion problems. There is a section along the west bank where a mesh fence about 5 feet tall and a few hundred feet long is holding back a dense section of giant reed.

3.3.1.5 Wildlife

The steep scrub covered slopes on the west side of the project site support a relatively low diversity of wildlife. As noted earlier, avian diversity, at least seasonally, is moderate to high at the site due to the mosaic of different landforms and habitat types, numerous perching trees, and the presence of a riparian corridor with year-round water.

The large eucalyptus stand at the western tip of the project site may be used as a roost site by a number of raptors, including red-tailed hawk, red-shouldered hawk, Cooper's hawk, great horned owl, barn owl, western screech owl, and others. No active or inactive raptor nests were observed at the project site during the May and June 2004 surveys for the EIR, nor by the applicant's biological consultants.

Common amphibians and reptiles expected to inhabit the project site include: Pacific treefrog, western toad, western fence lizard, southern alligator lizard, gopher snake, and common kingsnake. Crayfish and Pacific tree frog tadpoles were observed to be very abundant in the creek in May 2004. Hunt (1999) observed mosquito fish in the creek in 1999.

Common resident and migratory birds expected at the site include: red-tailed hawk, red-shouldered hawk, cooper's hawk, turkey vulture, American kestrel, northern flicker, downy woodpecker, acorn woodpecker, American crow, Anna's hummingbird, bushtit, Lawrence's goldfinch, scrub jay, Cassin's kingbird, northern mockingbird, northern oriole, black phoebe, greater roadrunner, American robin, violet-green swallow, California thrasher, plain titmouse, California towhee, spotted towhee, common yellowthroat, yellow-rumped warbler, yellow warbler, cedar waxwing, Bewick's wren, wrentit, golden-crowned sparrow, white-crowned sparrow, house finch, song sparrow, and cliff swallow.

Common birds observed during May 2004 surveys at the site for the EIR include orange-crowned warblers, pigeons, house sparrows, mourning doves, song sparrows, American crow, orioles, and bushtits. No raptor nests or raptors were observed during this 4-hour survey of the entire project site. The evaluation of raptor habitat and species occurrence for the EIR was based on the previous studies of the project site, as described below.

The project site, consisting of the 14.81-acre site with the eucalyptus grove, open grassland, barren disturbed areas, and riparian woodland along the creek, provides low to moderate quality habitat for raptors based on the following studies of the site:

- Final Biological Assessment, Las Positas Valley/Northside Pre-Annexation Study (1999), City of Santa Barbara (Biologists: Kathy Rindlaub and Larry Hunt)
- Biological Resource Analysis, Las Positas Valley (2000), for Peak-Las Positas Partners. (Biologists: Rachel Tierney and Larry Hunt)

Based on the above investigations, the following raptors are known to occur at the project site, using most of the different habitats for perching, resting, and foraging:

- Cooper's hawk – possible resident breeder, primarily in the riparian woodland along the creek. Recently observed.
- Sharp-shinned hawk – winter visitor or transient, which is expected to be uncommon to rare at the site, primarily associated with the riparian corridor. No recent observations.
- Northern harrier – winter visitor or transient, which is expected to be uncommon to rare at the site, primarily associated with the open areas of the site. Observed perched in eucalyptus trees in 1997.
- White-tailed kite – resident and summer breeder on the South Coast. Periodically observed foraging at the project site, but the prey base is limited and they are not expected to nest at the site (Larry Hunt).

Common mammals to be expected in the project area include: opossum, broad-handed mole, pocket gopher, deer mouse, dusky-footed woodrat, raccoon, striped skunk, bobcat, feral cat, and coyote.

3.3.1.6 Sensitive Habitats

Two habitats of special interest occur at the project site, as described below.

- Arroyo Burro. The creek contains year-round aquatic habitat, which is a scarce but highly productive habitat type in southern California. The creek provides cover and food for a variety of wildlife species, as well as a movement corridor along the watershed. Finally, the creek is tributary to the Arroyo Burro estuary where the endangered tidewater goby occurs.
- Oak Trees. Individual large oak trees and oak woodland habitat are considered valuable resources due to their inherent wildlife value (shelter and food for wildlife), aesthetics, and vulnerability to human disturbance (due in part to the long time period to reach maturity). Coast

live oak trees occur at the project site in the following locations: (1) a grove of large trees occurs in the center of the site, a remnant of the old water bottling company; (2) small to large oak trees occur as scattered individual trees or groups of trees on the stream terraces and banks of Arroyo Burro Creek.

3.3.1.7 Wetlands

Occurrence of "Waters of the U.S." as defined by the Corps of Engineers

Under Section 404 of the Clean Water Act, the Corps of Engineers (Corps) regulates the discharge of fill and dredged material into "waters of the United States," which are broadly defined in 33 CFR 328.3(a) to include navigable waters and others, such as intermittent streams and wetlands adjacent to such streams.

The lateral limits of Corps 404 jurisdiction in non-tidal "waters" are defined as *the ordinary high water mark*, unless adjacent wetlands are present. If wetlands occur within, or adjacent to, "waters," the lateral limits of jurisdiction will extend beyond the ordinary high water mark to the outer edge of the wetlands. The term "ordinary high water mark" means the line on the shore or edge of a channel established by the fluctuation of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, destruction of vegetation, debris, etc.

The Corps defines wetlands as: *"Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions"* (33 CFR 328.3). Under the Clean Water Act, wetlands must exhibit the following three characteristics:

- Hydrophytic vegetation - a predominance of plants that are adapted to anaerobic soil conditions
- Hydric soils - soils classified as hydric or that exhibit characteristics of reducing soil environment
- Wetland hydrology - inundation or soil saturation during a certain portion of the growing season

Arroyo Burro Creek is considered "waters of the United States" due to its connection to the Pacific Ocean. The lateral limits of "waters" along the creek at the project site are defined by both a visible ordinary high water mark and vegetated wetlands. The former occurs along the base of the creek banks and is evident by eroded banks, exposed cobbles, water-borne deposits of vegetation and woody debris, and water marks. Jurisdictional wetlands are present on portions of the creek bed with sandbars and on the margins of the creek bed where wetland plants (e.g., watercress, willows, sedge) persist despite the scouring effects of winter stream flows. As noted above, very little emergent vegetation is present in the creek bed because of the effects of winter stream flows, and the scarcity of oxbows and shallow marshy bank areas. Wetlands at the project site consist of small patches of watercress, willows, and sedges along the margins of the live stream. The general limits of "waters" at the project site are shown on Figure 3-12b.

California Department of Fish and Game

Fish and Game Code 1600 requires that the California Department of Fish and Game (CDFG) be notified of any activity that could affect the bank and bed of any stream that has value to fish and wildlife. Upon notification, the CDFG has the opportunity to execute a Streambed Alteration Agreement. CDFG does not have a formal definition of watercourses under their jurisdiction. Their practice has been to include any natural drainage with a definable bank and bed. Man-made drainages are typically included if the drainages have taken on the character of a natural stream; the drainage supports habitat; and/or the drainage will function as a natural watercourse in the future without human intervention, and is not supported solely by irrigation runoff. Wetlands need not be present for CDFG jurisdiction. The lateral extent of CDFG jurisdiction is typically the outer limit of any riparian vegetation contiguous with the bank of the watercourse.

The limits of CDFG jurisdiction at the project site are shown on Figure 3-12b. The outer limit of riparian-related vegetation includes oak trees, and extends above the top of bank.

Occurrence of Coastal Act Wetlands

The southern half of the project site occurs in the Coastal Zone (see Figure 3-12b). As such, the proposed project is under the jurisdiction of the City through its land use permitting authority under the Local Coastal Plan. The project will require a Coastal Plan amendment, which must be approved by the City and California Coastal Commission (CCC). Consideration of the amendment will require information about the presence of wetlands at the project site based on the definition in the Coastal Act and associated regulatory guidance from the CCC. Wetlands are defined in Section 30121 of the Coastal Act as follows:

> *"Wetlands means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, or fens."*

The operative criterion in the above definition is the presence of shallow water on land. The definition does not reference hydric soils or vegetation types, nor does it state or imply the required duration of inundation. Based on the above language, it appears that the wetland definition from the CCC regulations requires two parameters for vegetated wetlands (i.e., hydrology and wetland plants). However, the CCC typically identifies wetlands based on the presence of a single characteristic – typically, the presence of hydrophytic plants. These plants include species that are typically found in moist conditions (both prolonged moisture and seasonal moisture) such as willows, bulrush, mulefat, and watercress. This wetland definition is very broad because it does not require evidence of wetland hydrology; as such, Coastal Act wetlands can occur above drainage banks and in isolated depressions unconnected to watercourses. The general limits of Coastal Act wetlands at the project site are shown on Figure 3-12b.

Occurrence of Environmentally Sensitive Habitat Areas

Section 30107.5 of the Coastal Act defines "Environmentally sensitive area" as *"… any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an*

ecosystem and which could be easily disturbed or degraded by human activities and developments." In the Coastal Act, "environmentally sensitive area" is synonymous with "environmentally sensitive habitat area" (ESHA) and "environmentally sensitive habitat."

The Coastal Act does not specifically state that wetlands are "environmentally sensitive areas" or "environmentally sensitive habitat areas." Instead, a statement in the 1981 Interpretive Guidelines for Wetlands and Other Wet Environmentally Sensitive Areas provides guidance: *"The Commission generally considers wetlands, estuaries, streams, riparian habitats … to be environmentally sensitive habitat areas because of the especially valuable role of these habitats in maintaining the natural ecological functioning of many coastal habitat areas…"* Based on this statement, it is generally the practice of the CCC and the City's Planning Division to consider all wetlands, regardless of size and condition, as ESHAs.

Arroyo Burro Creek and the associated riparian habitat at the project site are considered ESHAs because: (1) they support a wide variety and abundance of aquatic species and wildlife; (2) the creek provides a movement corridor for fish, aquatic species and wildlife; (3) the riparian corridor is used for avian breeding and raptor breeding/perching; and (4) the riparian corridor at the project site is relatively long, densely vegetated, and continuous in contrast to most creek corridors in the City of Santa Barbara. The eucalyptus grove at the project site is not considered an ESHA due to its limited size, and the lack of autumnal monarch roosting. The overall quality of the project site for raptor foraging and nesting is insufficient to characterize the site as a raptor ESHA, particularly when compared to other identified raptor ESHAs on the South Coast where the raptor abundance and variety is markedly higher (e.g., More Mesa, Ellwood).

3.3.1.8 Sensitive Plant Species

Sensitive plant species include the following categories of species that are considered rare, endangered, or with limited distribution: (1) species officially designated as rare, threatened, or endangered by the California Fish and Game Department (CDFG) or US Fish and Wildlife (USFWS); (2) species included in the California Native Plant Society (CNPS) Inventory of Rare and Endangered Species of California; or (3) species of local botanical interest, and included on the list of locally rare plants maintained by the local CNPS chapter.

There are four locally-rare plant species, not listed under the state or federal programs, which have been collected in the region, but not at the project site. These plants are of interest because: (1) they are endemic to the Santa Barbara area, although they may be very abundant locally; or (2) they are uncommon in the County, although they are widespread elsewhere. Known populations are discussed below. None of these species were located at the project site during site reconnaissance and field surveys in 1994, 1996, 1999 or 2000 by Rachel Tierney Consulting (2004), and in 2004 by URS Corporation biologists. These species are not expected to occur at the project site.

- *Baccharis plummeme* (Plummer's Baccharis). This small shrub has been found in moist areas at the Douglas Family Preserve. It is on the California Native Plant Society's List 4 (a watch list) and has not been located on-site.

- *Echinodorus berteroi* (Burhead). This water plantain was collected along Las Positas Road near Veronica Springs in 1962 and 1963. The plant is also known from Lake Cachuma at Tequepis Point. It has not been observed along Arroyo Burro Creek.

- *Eriogonum citharaeforme* (Cithara Buckwheat). This annual endemic buckwheat was collected in Elings Park. It is often found along roadsides and other mildly-disturbed places within woodlands and chaparral communities in the fall. Due to the highly disturbed nature of the project site and the lack of chaparral or extensive native woodlands, this species has a low potential for occurrence. It has not been observed at the project site.

- *Samoliis parviflonis* (Water Pimpernel). This marsh species has been previously recorded in the Las Positas Valley. It has not been observed at the project site. This species has been located at El Capitan Beach, near the La Purisima Mission, and within hillside seeps outside of Oceano and Los Alamos.

3.3.1.9 Sensitive Fish and Wildlife Species

Sensitive wildlife species include the following categories of species that are considered rare, endangered, or with limited distribution: (1) species officially designated as rare, threatened, endangered by the California Fish and Game Department (CDFG) or US Fish and Wildlife (USFWS); and (2) Species of Special Concern designated by CDFG.

Threatened or Endangered Species

No threatened or endangered fish or wildlife species are known or expected to occur at the project site, as described below:

- The California red-legged frog *(Rana aurora draytonii)* is a federal threatened species that occurs in only a few South Coast streams such as Tecolote Creek in western Goleta, and Arroyo Paradon in Summerland. It has not been recorded on Arroyo Burro Creek, nor in other Santa Barbara creeks. Frogs are typically found in slow-moving or pooled water (i.e., runs or pools at least 12 inches deep) that have overhanging banks, aquatic emergent vegetation, and/or overhanging bankside vegetation that contacts the surface of the water creating cover and retreat sites. Adults and subadults frequently overwinter along the margins of the riparian corridor, in burrows or in dense leaf litter. Habitat for this species is poor along Arroyo Burro Creek at the project site. Surveys for this species at the project site in 2001 were negative, as were surveys conducted in 2004 for the EIR. The red-legged frog has not been observed in the annual creek surveys by the Santa Barbara County Flood Control District.

- The tidewater goby *(Eucyclogobius newberryi),* a state- and federally-endangered fish that resides year-round in the Arroyo Burro Creek estuary, about 0.75 miles downstream from the project site. This species occurs in coastal estuaries, often concentrated near the upper end of lagoons where the salinity is low. Tidewater gobies may travel upstream in freshwater reaches on occasion. This species constructs nests in fine sandy substrates. Tidewater gobies do not occur along Arroyo Burro Creek upstream of the estuary due to the presence of a 6 to 9 foot high concrete grade control structure at Cliff Drive, which prevents their upstream migration.

Another 3 to 4 foot high concrete barrier is located about 500 feet upstream of Cliff Drive that would also prevent upstream movement by this fish.

- The southern steelhead (*Onorhynchus mykiss)* occurs in coastal streams and creeks of Central and Northern California, and southern Oregon. The populations that occur between Los Angeles County and northern Santa Barbara County constitute the Southern California Evolutionarily Significant Unit (ESU), which has been designated an endangered species by the National Marine Fisheries Service (NMFS). Southern steelhead are known to historically use coastal streams as a migration corridor both during upstream movement to spawning areas in the Santa Ynez Mountains, and downstream movement to the ocean. There are recent incidental observations of steelhead in many South Coast streams such as Carpinteria, Montecito, and Mission creeks. There is documented evidence on Mission Creek of spawning. There have been anecdotal sightings of steelhead on upper San Jose Creek, and confirmed sightings on Atascadero and Marie Ygnacio creeks in the past several years. There are no modern records of southern steelhead on Arroyo Burro Creek. The concrete apron at the downstream end of the Cliff Drive bridge represents a significant, if not impassable, barrier. A larger barrier is present about one-half mile upstream of Cliff Drive, downstream of the project site.

Species of Special Interest

The following species of special interest are known to occur at the project site as transients or seasonal visitors.

- The monarch butterfly *(Danaus plexippus)* is a California Species of Special Concern. It forms large, highly disjunct overwintering aggregations in eucalyptus groves. This species is particularly abundant in western Goleta, forming very large wintering populations at Ellwood Devereux groves. The nearest aggregations to the project site are some eucalyptus stands in Hidden Valley and at the Douglas Family Preserve. The eucalyptus stand in the project area is too narrow and open to provide suitable microclimatic conditions for overwintering monarchs. This site is not considered a butterfly roosting area by local authorities (Adrian Wenner; personal communication; Althouse and Meade, 2000). However, individual monarchs are known to occur at the project site, and may visit the eucalyptus stand.

- The Cooper's hawk *(Accipiter cooperi)* is a California Species of Special Concern. This wide-ranging raptor is typically associated with oak woodland and riparian woodlands. It is an uncommon to common transient and winter visitor. Formerly more abundant as a breeding species, it is now a very uncommon to rare breeder in the Santa Barbara area. There are periodic observations of Cooper's hawks in the Arroyo Burro Creek riparian corridor and adjacent oaks and ornamental trees at the project site. This species may occasionally breed at the site.

- The northern harrier *(Circus cyaneus)* is a California Species of Special Concern that is an uncommon fall transient and winter visitor to the south coast of Santa Barbara County. It typically forages and nests in grasslands and open scrub habitats and freshwater and salt marshes. Harriers have been observed in the Las Positas Valley on occasion, but are relatively

uncommon. They may temporarily roost in the eucalyptus stand at the project site, but would not reside, breed, or spend an extended amount of time at the site.

- Sharp-shinned hawk (*Accipter striatus)* is a California Species of Special Concern. This species is a winter visitor or transient on the South Coast. It is expected to be uncommon to rare at the site, primarily associated with the riparian corridor. It has not been observed at the project site in recent years.

- The loggerhead shrike *(Lanius ludovicianus)* is a California Species of Special Concern that is widely distributed across arid and semi-arid lands of the western United States. It is an uncommon resident and rare breeder along coastal southern Santa Barbara County. Shrikes were observed foraging in disturbed coastal sage scrub and floodplain habitats on the project site in June 1999, but were not observed during the May 2004 survey. As such, it is considered an infrequent resident of the site.

The following species of special interest may potentially occur at the project site, but there have been no records and the habitat conditions for these species appear poor (Hunt, 1999; Collins, 1999).

- Southwestern pond turtle (*Clemmys marmorata pallida*) – possible, but unlikely resident of pools in the creek
- Two-striped garter snake (*Thamnophis hammondii*) - possible, but unlikely resident of Arroyo Burro riparian corridor
- Silvery legless lizard (*Anniella pulchra pulchra*) – possible resident of riparian corridor
- White-tailed kite (*Elanus leucurus*) – occasional visitor to the site for foraging, not breeding
- Yellow warbler (*Dendroica petechia*) – possible spring breeder in the riparian corridor
- Yellow-breasted chat *(Icteria virens)* – possible seasonal transient in the riparian corridor
- Pale big-eared bat (*Corynorhinus townsendii pallescens*) – possible infrequent visitor to the site for foraging
- Pallid bat (*Antrozus pallidus*) – possible infrequent visitor to the site for foraging
- Warbling vireo (*Vireo gilvus*) – possible seasonal transient in the riparian corridor

3.3.2 Potential Impacts

3.3.2.1 Impact Thresholds

Applicable biological impact thresholds from the *CEQA Guidelines* Appendix G (Biological Resources section) are listed below: A project will normally have a significant impact if it will:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, special status, or special status species in local or regional plans,

policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

b) Have a substantial adverse effect on any riparian habitat or other special status natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The CEQA Environmental Checklist also contains the following Mandatory Finding of Significance:

a) Does the project have the potential to … substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant …?

3.3.2.2 Habitat Impacts Due to Land Development

Development of the project site would result in the following adverse and beneficial impacts to habitats:

- Development of residences and roads – permanent habitat loss
- Creation of the central and hillside open spaces – conversion of existing disturbed habitats to native upland habitats with greater native plant species diversity and cover (beneficial impact)
- Enhancement of the creek corridor including native plant restoration and bank repair – enhancement of a disturbed riparian habitat (beneficial impact)

The estimated habitat impact acres are shown in Table 3-10.

TABLE 3-10
HABITAT IMPACTS

	Upland	Oaks	Riparian	NNG/RD*	Arundo	Eucs	RD*	Orn*	Total
Residences	0.066 ~~0.105~~	0.007 ~~0.004~~	0.068 ~~0.008~~	2.908 ~~3.174~~	0.001 ~~0.007~~	0.107 ~~0.280~~	0.542 ~~0.507~~	0.334 ~~0.405~~	4.031 ~~4.491~~
Road and paths	0.077 ~~0.022~~	0.150 ~~0.184~~	0.125 ~~0.115~~	1.070 ~~0.867~~	0.033 ~~0.039~~	0.458 ~~0.435~~	0.495 ~~0.502~~	0.225 ~~0.224~~	2.632 ~~2.388~~
Hillside Open Space (Lot 27)	0.057 ~~0.856~~	0.014 ~~0.116~~	0.000~~0.000~~	0.210 ~~0.557~~	0.000 ~~0.022~~	0.423 ~~0.314~~	0.192 ~~0.204~~	0.007 ~~0.522~~	0.902 ~~2.591~~
Central Open Space (Lot ~~25~~31)	0.011 ~~0.000~~	0.056 ~~0.057~~	0.000 ~~0.017~~	0.606 ~~0.796~~	0.000~~0.000~~	0.072 ~~0.082~~	0.108 ~~0.186~~	0.051 ~~0.097~~	0.904 ~~1.234~~
Creek Open Space (Lots 27 and 28)	0.861 ~~0.140~~	0.584 ~~0.483~~	0.730 ~~0.916~~	1.038 ~~0.506~~	0.724 ~~0.791~~	0.548 ~~0.218~~	0.952 ~~0.815~~	0.864 ~~0.253~~	6.300 ~~4.123~~
Total Affected by the Project =	1.071 ~~1.123~~	0.810 ~~0.844~~	0.923 ~~1.056~~	5.831 ~~5.900~~	0.758 ~~0.859~~	1.608 ~~1.329~~	2.289 ~~2.215~~	1.481 ~~1.501~~	14.769 ~~14.827~~
Total Permanent Loss =	0.143 ~~0.127~~	0.157 ~~0.188~~	0.193 ~~0.123~~	3.978 ~~4.041~~	0.034 ~~0.046~~	0.565 ~~0.715~~	1.037 ~~1.010~~	0.559 ~~0.629~~	6.663 ~~6.879~~
Native plant landscaping on the project site (Lots ~~25,~~ 26, 27, 28, 31)	0.929 ~~0.996~~	0.654 ~~0.655~~	0.730 ~~0.933~~	1.854 ~~1.860~~	0.724 ~~0.813~~	1.043 ~~0.614~~	1.252 ~~1.205~~	0.922 ~~0.872~~	8.106 ~~7.948~~
Offsite native landscaping on City property	0.37	0.48	0.08	0.00	0.31	0.09	0.02	1.30	2.659
Total Native Restoration (Upland and Riparian Habitats) =	1.299 ~~1.370~~	1.134~~1.134~~	0.810 ~~1.014~~	1.854 ~~1.861~~	1.034 ~~1.122~~	1.133 ~~0.709~~	1.272 ~~1.221~~	2.222 ~~2.177~~	10.765 ~~10.607~~
% of habitats on the project site that is permanently lost	13%~~11%~~	19%~~22%~~	21%~~12%~~	68%~~68%~~	4%~~5%~~	35%~~54%~~	45%~~46%~~	38%~~42%~~	45%~~46%~~
% of habitats on the project site to be restored	87%~~89%~~	81%~~78%~~	79%~~88%~~	32%~~32%~~	96%~~95%~~	65%~~46%~~	55%~~54%~~	62%~~58%~~	55%~~54%~~

* RD = ruderal (weedy) vegetation. NNG = non=native grassland. Orn = ornamental species.

The estimated impact areas in Table 3-10 and in the summary discussion below have been updated to reflect the Current 2008 project design (which is described in Section 4.13). The changes, relative to the impact areas from the original design are small. To allow this comparison, the revisions markings showing the original areas have been retained in the ~~t~~Table. These data indicate that, of the 14.8 acres at the project site, only 6.8 acres would be permanently removed. The remainder would be converted to higher value native habitats (central and hillside open spaces) or be enhanced with additional native plants and the removal of noxious species (creek corridor restoration). Approximately eight acres of existing native and non-native habitats at the project site would be enhanced as a result of the proposed project.

The predominant habitat that would be permanently removed due to the construction of residential lots is non-native grassland/ruderal vegetation. This habitat, which dominates the central portion of the project site, has a very low wildlife function and value. About 0.16 acres of oak woodland, and 0.19 acre of riparian habitat would be removed. The permanent loss of native and non-native habitats at the project site is considered a **significant but mitigable impact (Class II)** for the following reasons:

- The amount of native habitat to be removed is very low (about 0.35 acre) compared to the entire site (14.8 acres). Most of the habitat impacts would occur to low value, non-native habitats. In the case of riparian habitat, that portion of direct permanent impacts on riparian habitat as a result of the proposed road in the middle of the site can not be avoided by realignment of the road without significantly impacting a large stand of native oaks or realignment of the road onto extremely steep slopes.
- The applicant has proposed to restore the open space areas with native vegetation, which would result in the creation and enhancement of about eight acres of native upland and riparian habitats on the project site. This action would improve habitat conditions at the project site, even with the presence of residences. The increased acreage and biological value of these restored habitats would more than offset the loss of the 0.35 acres of native habitats. The applicant has also proposed to restore all native habitat areas temporarily disturbed by the project back to native habitat following project construction.

The permanent habitat impact has been classified as significant, but mitigable (instead of less than significant) because the proposed restoration plans for the upland open space areas, the detention basin and bioswale in the central open space, and the creek corridor are still conceptual. The proposed restoration plans for upland and riparian habitat areas at the project site must be refined and improved to ensure that the intended native habitat restoration is successful. The proposed habitat restoration is very comprehensive and ambitious. Successful implementation of the restoration program would greatly enhance habitat conditions in the lower Arroyo Burro watershed. Recommendations for improving the restoration program are provided in Mitigation Measure BIO-1.

3.3.2.3 Effect of Proposed Creek Corridor Restoration and Bank Repair

As noted above, the creek corridor is highly disturbed due to the increasing presence of giant reed and other noxious weeds which are displacing native riparian species. It appears that the degradation

of the riparian habitat would continue unabated unless a restoration effort is implemented. The applicant has proposed an ambitious plan to restore and enhance riparian habitat along Arroyo Burro Creek as part of the project. The extent of the proposed restoration is shown on Figure 3-14.

The major components of the plan are to remove the noxious weeds from the area, stabilize eroding banks, and establish a variety of native plants. If appropriately designed and successfully implemented (with the inclusion of Mitigation Measures W-2 and BIO-1), the proposed creek corridor restoration would result in the creation and enhancement of about 4.1 acres of riparian habitats on the project site, and 2.7 acres of riparian habitat on the adjacent City parcel (Table 3-9). The overall impact of a successful creek corridor restoration is considered **beneficial (Class IV)** to biological resources along the creek at the project site, as well as for the entire Las Positas Valley.

The applicant has proposed to restore two eroded portions of the west bank of Arroyo Burro Creek, shown on Figure 3-6. The southernmost eroded area was created when the toe of the bank failed during the 1998 El Nino floods, causing extensive bank failure to the top of the bank, and exposing a sewer line. The northern erosion feature was also caused by the undercutting of the lower creek bank during the high storm flows. The applicant has prepared conceptual bank repair plans that are presented on Figure 3-6. The plans are not sufficiently detailed to determine the physical extent of the proposed bank repair. It is possible that the proposed bank repair could require significant removal of willow trees that have become established in the eroded areas. The existing native trees may provide sufficient bank protection such that the proposed bank repair can be reduced in scale. In addition, the proposed bank repair does not include consideration of stabilizing the toe of the slope where the original bank failures occurred. Hence, there is a potential for the bank repair, as currently proposed, to destabilize these slopes and increase bank erosion along the creek. This impact is considered **significant, but mitigable (Class II).** Implementation of Mitigation Measure W-2 would ensure that excessive bank work is not performed which may destabilize slopes that are becoming more stable through natural revegetation, and that the long-term bank repair would be successful. The proposed bank repair would improve riparian habitat conditions at the site of the eroded banks if the existing non-native plants are replaced with native riparian shrubs and trees that would persist.

Mitigation Measures W-2 (Section 3.1.5) and BIO-1 (Section 3.3.4) require that the applicant submit final detailed creek bank stabilization and creek corridor habitat restoration plans for City approval. The final plans shall be based on detailed hydrological, geomorphological, and biological analyses to ensure achievement of desired conditions, which include successful bank stabilization, reduced erosion, improved water quality, enhanced riparian habitat, and channel grade stabilization. The plans shall also ensure that no adverse biological impacts would occur as a result of the restoration efforts.

3.3.2.4 Effect of Fuel Management on Creek Restoration and Native Plants in Open Space Areas

As described in Section 3.8.4, the current defensible space requirement for the project area established by the Fire Department is 50 – 70 feet. It is anticipated that the minimum distance (50 feet) would be acceptable along the east side of lots along the creek due to the presence of a road. The defensible space requirements restrict the density and height of plants. Based on the new

distance requirements for this area, these requirements would not substantially adversely affect the creek corridor restoration which would extend well beyond the 50 foot set back boundary. Most of the creek corridor open space (Lots 26 and 28) with the pedestrian path would not be located in the 50 foot defensible space.

The open space areas surrounding the lots and outside of the 50-foot wide creek setback line (Lots 27 and 31 (in the Current 2008 Project design), and portions of Lots 26 and 28) would be landscaped with a broad mixture of native and non-native plants. The defensible space requirements noted above would apply to portions of these open space areas. The extent of the defensible space is shown in Appendix F. The restriction on the density and height of native plants to be installed in these open space areas is not expected to substantially adversely affect the native plant restoration because the types of habitats that would be suitable for restoration in these areas include low-growing shrubs with a mosaic of grass and shrubs, with periodic open spaces.

3.3.2.5 Loss of Oak Trees

The proposed project would remove up to seven coast live oak trees at the project site. The loss of these trees is considered a **significant, but mitigable impact (Class II)** because the number of trees to be removed would be small relative to the total number of oak trees on the property, the trees to be removed are not specimen sized trees (with the exception of the oak tree at the proposed bridge entrance), and the trees can be feasibly replaced (at a 10:1 ratio) as part of the habitat restoration plan for the project. Mitigation Measure BIO-2 addresses mitigation for oak tree loss, and protection of oak trees to remain at the site.

3.3.2.6 Effect of Bridge on Riparian Habitats and Wildlife

Construction of the bridge across Arroyo Burro Creek would permanently displace native and non-native habitat. The eastern abutment near Las Positas Road would remove a large coast live oak tree (30 inches diameter) and about 600 to 800 square feet of willow-giant reed habitat on the creek banks. Located directly adjacent to the south side of the western abutment is a large willow grove and eucalyptus tree. The western abutment would displace non-native grassland and ruderal species. The bridge span would displace a mixture of willow and giant reed that are present on the creek banks, and may result in damage to the roots of a nearby large sycamore tree on the west bank south of the proposed bridge. The impacts resulting from removal of vegetation under and adjacent to the bridge would be temporary, as these areas would only be temporarily cleared to construct the forms for the bridge. The area of temporary impact associated with the bridge construction is estimated to be about 0.25 acre, comprised of the bridge space and a 25 foot construction zone buffer area upstream and downstream of the bridge.

The loss of the large coast live oak tree and temporary damage to roots of the large sycamore tree at the bridge site is unavoidable. The bridge must be aligned with the Elings Park entrance to ensure safe operation of the intersection. The permanent loss of the 600 to 800 square feet of willow and giant reed on the creek banks underneath the bridge is similarly unavoidable due to limitations of the bridge design and required alignment with the Elings Park entrance. The applicant has proposed to mitigate the significant impacts of this habitat loss with a creek corridor restoration plan that includes substantial restoration of riparian, creek, and wetland habitats.

While the project would result in a net increase in riparian and creek habitats in the general area of the project, the site specific loss of riparian habitats in the vicinity of the bridge could negatively impact wildlife movement through that portion of the creek corridor. The proposed bridge would result in a permanent alteration of habitat because the vegetation that would become established under the bridge in the future would be limited by the presence of the bridge structure. It is likely that portions underneath the bridge will not support vegetation at all while other areas will support limited riparian vegetation that will be compromised by the amount of available light and height constraints of the bridge. Hence, a dense, tall riparian woodland could not develop at this location with the bridge in place. Mostly low-growing shrubs and small willows are likely to develop on the creek banks under the bridge

Subsequent to publication of the Final EIR in 2005, additional details have become available as the creek restoration plan has been developed. The restoration plan includes measures to reshape the western creek bank under the bridge and lower the bank by four to eight feet, thus increasing the distance between the bottom of the bridge and the ground, which would allow for more light to enter under the bridge and increased space for riparian trees to grow. This would help reduce the light and height constraints to vegetation growth caused by the bridge; however, the bridge would still influence the underlying vegetation. The bridge has been designed to minimize these impacts and with the exception of reducing the width, cannot technically be designed to further reduce these impacts. The change in habitat could affect wildlife movement if there is a complete gap in vegetation cover under the bridge. In addition, wildlife movement would be hindered by the presence of the concrete abutments and roads at each end of the bridge.

Natural gaps occur in riparian corridors due to natural processes such as trees falling due to bank failure or changes in substrate that change the vegetation structure. Gaps in the dense and shaded portions of the riparian corridor provide openings for different plants and insects. Hence, a gap in and of itself is not necessarily significant to wildlife movement. However, in light of the narrow riparian corridor at this location and the close proximity of other human disturbances that affect wildlife (i.e., Las Positas Road, Stone Creek Condominiums), the overall impact of the bridge on riparian habitat and associated wildlife is considered **significant and unmitigable (Class I)**.

As a rule of thumb, the width of a wildlife corridor should be 1,000 feet at a minimum (Bond 2003), a distance that accounts for edge effects and other factors (Bradshaw and Marquet 2003:314-317). Under existing conditions, the creek and adjacent floodplain at the bridge site is already restricted to 430 feet in width, which is less than desirable. Implementation of the proposed project would further reduce the wildlife corridor to approximately 140 feet (span of the bridge) or less depending on the final western bank reshaping at the bridge location. This would result in a restriction of wildlife movement at the bridge location because it would create a bottleneck effect and increased habitat fragmentation of the lower Arroyo Burro watershed. This impact can be partially offset by implementing the following mitigation measures which are further discussed in 3.3.4:

- Restoring temporarily disturbed areas associated with the bridge construction with native riparian vegetation (Mitigation Measure BIO-3)

- ~~Increasing~~ Including within the proposed habitat restoration areas ~~between Lots 11 and 12 and the creek and adding habitat restoration to the area between Las Positas Road and the creek from the bridge to the Stonecreek condominiums,~~those areas disturbed by construction of the bridge abutment, as specified in Mitigation Measure BIO-4.
- Removing one of the two sidewalks on the bridge would provide a slight reduction in the bridge shadow effect on underlying habitat (see Mitigation Measure BIO-8).
- Reducing vehicle noise associated with the bridge through minor modifications in design and materials such as using noise absorbent materials for bridge surfacing, and installing wildlife crossing signs and speed bumps (see Mitigation Measure BIO-9)

There were many public comments on the above impact conclusion as presented in the Draft EIR. A detailed analysis of the basis for concluding that the impact of the bridge on riparian habitat and wildlife is a significant impact is presented in Topical Response No. 2 – Environmental Impacts of the Proposed Bridge (Appendix F). Based on new information resulting from a follow-up site visit by URS biologists in March 2008, and an analysis of a report received by the City from Althouse and Meade, Inc. dated February 2008, Topical Response No. 2 can be clarified as follows:

- Reason No. 1 "Substantial Physical Effect on Riparian Habitat and Trees": 1) A single oak tree, not oak woodland, would be displaced by the bridge; however, the bridge would likely preclude the potential establishment of oak woodland which is a habitat along lower Arroyo Burro Creek. 2) The 40-foot sycamore tree would not be lost but would potentially incur temporary root damage and trimming of branches.
- Reason No. 2 "Substantial Physical Effect on the Creek Channel": The vertical constraints of the bridge would be ~~reduced~~ partially mitigated by implementation of the creek restoration plan which includes measures to reshape the western bank under the bridge and lower it by four to eight feet.
- Reason No. 3 "Effect on Wildlife Movement and Interaction": The bridge would not "force all wildlife to pass under the bridge" since some wildlife would cross the adjacent roads associated with the bridge; however, crossing under the bridge ~~crossing~~ would be the only safe wildlife corridor.
- Reason No. 4 "Potential Inconsistency with Local Policies": 1) In May 2005, the California Supreme Court in Sierra Club v. California Coastal Commission (2005) 35 Cal.4th 839 interpreted the Coastal Act and the scope of its applicability. The Supreme Court explained that it was proper for the Coastal Commission to consider impacts in the coastal zone due to portions of a project outside the coastal zone. The Commission may not, however, deny a permit or ~~condition~~ a project based on project-related impacts outside the coastal zone. In the case of Veronica Meadows, the southernmost portion of the project is located in the coastal zone. The proposed bridge is located outside of the coastal zone on the northern portion of the project site and would not directly impact resources within the coastal zone. However, the proposed bridge ~~could~~ would potentially restrict wildlife movement and increase habitat fragmentation of the lower Arroyo Burro watershed, the southern part of which is located in the coastal zone.

Based on a consideration of the updated project information, comments, and additional analyses of this issue, the City has determined that the impact classification in the EIR is appropriate and supported by substantial evidence (as defined under the CEQA Guidelines, Sections 15382 and 15064) due to a combination of the following factors:

- The permanent alteration of native and non-native riparian habitat at the crossing due to the shadow effect of the bridge. It is likely that portions underneath the bridge will not support vegetation at all and other portions will support limited riparian vegetation that will be compromised by the amount of available light and height constraints of the bridge.
- Loss of a large oak tree and unavoidable, though temporary, damage to the roots of a large sycamore tree during the bridge construction.
- In light of the existing constraints and narrowness of the riparian corridor at the proposed bridge location, possible negative effects on the movement of wildlife using the project site and increased habitat fragmentation of the lower Arroyo Burro watershed, particularly the riparian corridor, due to the gap in and alteration of the riparian vegetation at the bridge, the presence of concrete abutments that impinge into the creek channel, and road connections at each end of the bridge.

These impacts are substantial, as defined in the CEQA Guidelines (Section 15382), which is a criterion for identifying significant impacts.

It is recognized that this conclusion may remain controversial, and that evidence may also support a differing conclusion—that impacts caused by the bridge construction and other factors that combine to constrict the wildlife corridor function will be reduced to a level below significance. The project design elements, including creek restoration, setback distances, retention of the sycamore tree, widening and re-contouring the streambed at the bridge location, and other factors, reduce the degree of this impact. Based on a thorough review of this issue, and acknowledging a difference among experts, the City continues to accept the more conservative conclusion that the effect of the bridge construction and factors that restrict the wildlife corridor function of Arroyo Burro Creek remain a significant and unmitigable (Class I) impact.

Ultimately the decision makers in the City, the Council, may reach a different conclusion, as long as it is supported by evidence and is explained in appropriate environmental findings.

3.3.2.7 Effect of Proposed Drainage on Riparian and Aquatic Habitats

As described in Section 3.1.2.2., the proposed drainage plan with two discharge points to the creek would substantially modify the current drainage and discharge conditions along the creek. Redirecting the flows to the two discrete storm drain outlets would reduce infiltration and bank seepage along Arroyo Burro Creek at the project site. The reduction in on-site infiltration and groundwater storage that supports riparian bank vegetation or that discharges to the creek is considered a **potentially significant, but mitigable impact (Class II**). It can be avoided by modifying the site drainage system to provide more infiltration and a greater number of outlets to the creek as specified in Mitigation Measure W-1.

3.3.2.8 Water Quality Impacts on Aquatic Organisms

As described in Section 3.1.2.2, the proposed project would adversely affect water quality in Arroyo Burro Creek due to stormwater pollution from the new residential development and associated creek corridor open space. The pollutants would include nutrients (i.e., from fertilizers), pesticides, herbicides, metals, sediment, and bacteria. Several of these pollutants could adversely affect aquatic invertebrates and fish in the creek. For example, excessive levels of nutrients can increase algal growth in the summer, which in turn can deplete oxygen in the water which would harm aquatic organisms. Pesticides and herbicides can affect aquatic organisms if the concentrations are very high. The analyses in Section 3.1.2.2 indicate that the level of stormwater pollution from the proposed project is not expected to be severe due to the low density of housing, the type of land use involved, the relatively high amount of permeable surfaces, and the presence of a creek buffer zone with native vegetation. To ensure that the stormwater pollution would be less than significant, the proposed stormwater treatment system should be expanded and modified as described Mitigation Measure W-4. Based on the addition of this mitigation, the impact of stormwater pollution on water quality in Arroyo Burro Creek is considered less than significant (Class III). This conclusion would also apply to the effect of stormwater pollution on aquatic organisms in the creek.

3.3.2.9 Impacts to Wildlife During Construction

Construction activities at the project site would result in increased noise, traffic, dust, and human activity. These disturbances would displace wildlife from the areas under construction, and possibly displace or discourage wildlife from the Arroyo Burro Creek corridor during periods of noisy construction activity near the creek. Construction activity in or near the riparian areas during the breeding season could disturb breeding birds pairs and cause them to abandon the area. Birds in the scrub covered hills adjacent to the construction area may be temporarily flushed out of the project site during construction depending on the amount and frequency of noise. Other wildlife such as lizards and rodents would be similarly displaced. Mortality of some common rodents and reptiles may occur during grading.

The impact of construction on wildlife at the project site is considered **significant, but mitigable (Class II)** because the most substantial impact (disturbance of breeding riparian birds and raptors) can be avoided by scheduling major construction activities outside the breeding bird season (Mitigation Measure BIO-5) and minimizing habitat disturbance during construction (Mitigation Measure BIO-6).

3.3.2.10 Effect of Development and Human Uses on Creek and Riparian Habitat Resources

As noted earlier, the most important biological resource at the project site is Arroyo Burro Creek and its associated riparian habitat. The creek corridor contains dense riparian cover that supports a high diversity and abundance of wildlife species compared to upland habitats. In addition, the creek channel and terraces with dense plant cover provide a corridor for aquatic species and wildlife to move between the lower and upper reaches of the creek and Arroyo Burro watershed. Finally, the creek contains federally and state defined wetlands, and the creek and riparian habitat are considered an Environmentally Sensitive Habitat Area (ESHA) in the Coastal Zone.

The proposed project has been designed to avoid direct impacts to the creek and riparian habitat resources, except at the bridge crossing, the pedestrian footpath, and two small areas along the road. Direct impacts associated with the bridge are discussed in Section 3.3.2.6. Direct impacts associated with the pedestrian footpath and two areas along the road would be minimal and may involve trimming of riparian trees or minor vegetation removal. In addition, the approximately 700 sq. ft. road encroachment into the riparian areas proposed in the center of the property can not be avoided. The realignment of the road at this location would either result in removal of a large native oak grove or placement of the road on very steep slopes. Other than these areas, the primary impact to the creek and riparian habitat resources would be indirect disturbance from the adjacent development. These indirect impacts include the following:

1. Noise from vehicles and residents that may disturb wildlife in the riparian habitats of the creek, and possibly discourage or reduce foraging, breeding, and travel.
2. Nighttime lighting from street lights and residences that could adversely affect nocturnal species which rely on darkness to hunt or evade predators would be especially affected, including owls, nighthawks, and small mammals. On the other hand, certain species of aerial-foraging bats may be aided by night-lighting as these light sources are foci of activity for many flying insects.
3. Physical disturbances to the riparian habitat from people and pets that wander into the creek corridor from the pedestrian path. These disturbances can displace wildlife, degrade habitat, destroy nests, and, in the case of pets, result in direct mortality of wildlife.
4. Degradation of water quality in the creek from stormwater pollution which can adversely affect aquatic insects and fish in the creek.
5. Degradation of water quality in the creek from pesticide/herbicide use in the creek corridor open space which can adversely affect aquatic insects and fish in the creek.
6. Colonization of the creek corridor by ornamentals and exotic plant species associated with the adjacent development, displacing native plants.

The ***magnitude*** of these impacts can be ***lessened*** by establishing a suitable buffer zone between the development (i.e., the source of the disturbance) and the creek and riparian habitat resources. The determination of whether these impacts are considered significant involves a consideration of many factors, including the width of the buffer zone, management actions in the buffer zone, and the nature of the adjacent aquatic and riparian resources.

The applicant has proposed two creek setbacks from the top of the west bank of Arroyo Burro Creek, as shown on Figure 3-13: (1) a 50-foot wide buffer zone in which no roads or structures would be located, but a 5-foot pedestrian path would be present to provide public access to the open space and to traverse the project site from Las Positas Road to Alan Road; and (2) a 100-foot wide setback line which demarcates the limit of structures; roads, driveways, and sidewalks that would be present between the 50 to 100 foot zone. The riparian habitat is generally within the 50-foot buffer zone; however, as discussed previously, the proposed project includes some encroachments (a small portion of road, pedestrian pathways, and bridge) into the riparian habitat onsite. One of two road and pedestrian encroachments occurs in an area where no alternative alignment exists that would not result in significant losses of native oak trees north of the road or

alignment of the road on extremely steep slopes. The proposed structures, however, are setback from riparian habitats onsite at an average distance of 80 feet. One structure near the center portion of the site (Lot 7) is sited closer (40 feet) to the riparian habitat.

The applicant has mapped the top of bank as shown on Figures 2-3 and 3-13 based on a combination of field observations of the grade break, and a determination of the theoretical top of bank using a hypothetical 2:1 slope that would extend from the toe of the bank. URS has extended the top of bank at three locations to reflect the major grade break present along the creek at these locations. It is recognized that the top of bank near the sewer line erosion location is, in part, an artifact of the sewer line discharge that eroded much of the bank. However, the bank failed prior to the sewer line being severed, indicating that the bank at this location was already vulnerable. The other bank erosion location where the top of bank was extended outward appears to be a natural bank failure associated with a larger landslide.

There is no formal definition of the top of bank in such complex conditions in which the creek banks are intermixed with landslide features and various alluvial terraces that have been uplifted and eroded. However, one of the primary purposes of a creek setback is to ensure that the hydraulic and biological processes in the creek are protected. The land between URS' top of bank and the applicant's top of bank at these three locations are functional parts of the creek rather than the uplands. As such, the URS top of bank at these locations provides a more conservative limit based on the intent of the creek setback requirements. Alternative creek setbacks using the URS' top of bank are addressed in Section 4 of the EIR.

The extent to which the proposed 50 and 100 foot setbacks would reduce the magnitude of indirect impacts of the adjacent development is summarized below in Table 3-11, along with potential deficiencies in the proposed buffer zone in providing protection to the adjacent aquatic and riparian resources of the creek. These deficiencies can be corrected by enlarging the creek setback, implementing certain habitat and public access management actions, or a combination of both approaches. The use of management actions to protect creek resources does not necessarily imply that they are more effective in protecting or enhancing riparian and aquatic habitat, water quality, or wildlife than a larger creek setback – only that management actions can reduce impacts.

The analysis summarized in Table 3-11 indicates that the proposed setback distances of 50 and 100 feet are generally adequate to provide protection to creek resources; however, additional measures are needed to enhance the proposed setbacks and mitigate for direct and indirect impacts to riparian habitat. The proposed setback distances and the proposed creek corridor buffer zone are considered adequate to avoid the potentially significant impacts listed in Section 3.3.2.1 (excluding the significant impacts in Section 3.3.2.6), provided Mitigation Measures W-1 and BIO-7 are implemented. Hence, direct and indirect impacts to creek and riparian habitat resources (excluding the significant impacts in Section 3.3.2.6) due to the proposed residential development are **considered significant, but mitigable (Class II).**

TABLE 3-11
ADEQUACY OF PROPOSED CREEK SETBACKS IN REDUCING IMPACTS TO CREEK RESOURCES

Impact to Creek Resources	Effectiveness of the Proposed Creek Setback and Buffer Zone in Reducing Impacts to Creek Resources	Other Possible Management Actions to Further Reduce Impacts to Creek Resources (other than a larger setback)
Noise and human activity from adjacent roads and residences that could disturb wildlife in the riparian habitat of the creek	Adequate because the noise generation from residential uses and a no-through traffic road would be very low. The setback is also adequate because the habitat values of the creek buffer zone will be enhanced compared to current conditions, and because the buffer zone will be part of a much larger and wider riparian corridor along the creek.	Other management actions are available to substantially reduce impacts from adjacent roads and residences.
Nighttime lighting impinging on riparian habitat in the creek	The adequacy of the proposed creek setback in reducing this impact would vary depending upon the location of the lighting and proximity to the creek. Widening the creek setback and providing more dense planting would reduce this impact.	A potentially effective management action is available. The intensity and coverage of lights could be adjusted at the fixtures which could reduce this impact. See Mitigation Measure BIO-7.
Disturbance from people and pets using the pedestrian path in the creek corridor	The creek buffer zone with path is relatively narrow and may not be sufficient to effectively reduce this impact because its small size could make it be more vulnerable to human disturbance from unleashed pets, children playing in the creek, and pedestrians creating new trails. A wider creek setback would provide more space to prevent unwanted impacts from people and pets.	A potentially effective management action is available. Strategic placement of the path and management of access and use in the buffer zone could reduce this impact with the proposed setback. The effectiveness of this action is unknown, and would depend upon monitoring and enforcement of access rules. See Mitigation Measure BIO-7.
Stormwater pollution from adjacent developed areas and roads that may be discharged to the creek	Not applicable because the applicant has not proposed to use the creek buffer zone for stormwater treatment. However, a wider creek setback would provide more space for bio-filtration and percolation of stormwater, if discharged to the buffer zone.	Use of portions of the creek buffer zone for stormwater treatment would be beneficial for water quality, and could also enhance restoration efforts. See Mitigation Measure W-1.
Use of herbicides and pesticides in the creek corridor open space which could be discharged to the creek	The adequacy of the proposed creek setback in reducing this impact would vary depending upon the amount and location of herbicide and pesticide application.	This impact can be addressed more effectively by managing herbicide and pesticide use in the buffer zone than by simply widening the buffer zone.
Colonization of the riparian habitat in the creek corridor by invasive weeds or ornamentals from adjacent residences	The proposed creek buffer zone is relatively narrow and may not be sufficient to prevent this impact over time because its small size and anticipated human use could make it be more vulnerable to weed and ornamental plant colonization over time. However, the restored creek corridor would have less weeds and ornamental plants compared to current conditions. A wider creek buffer zone may be more resistant to invasive weeds.	This impact can also be addressed, possibly more effectively, by active habitat management in the buffer zone. However, the success of reducing the impact would depend directly on the diligence in monitoring and maintenance of the buffer zone. See Mitigation Measure BIO-7.

The proposed project includes restoration of about four acres of riparian habitat along the creek corridor (which will be dedicated public open space) and about 2.7 acres of riparian habitat on City-owned property. The restoration of riparian habitats along the creek would offset the direct and indirect impacts of residential development at the project site when combined with the proposed

creek setbacks of 50 and 100 feet and Mitigation Measures W-1 and BIO-7 (designed to protect creek resources). Indirect impacts to the aquatic and riparian resources of Arroyo Burro Creek, with the proposed creek setback, are considered significant, but mitigable (Class II) only if the EIR mitigation measures related to water quality and biological resources are implemented, and the proposed creek restoration is fully implemented and successful.

It should be noted that the City does not have a standard setback requirement for development along creeks except along Mission Creek. Protective setbacks are determined on a case-by-case basis, depending upon specific conditions of each site and proposed development. In 2003, the City issued draft Creek Development Standards for projects located next to all creeks in the City. Public hearings were conducted on the proposed standards, which resulted in a high level of interest and controversy. The City staff has indicated that the development of standards will require more time and further public participation and hearings beyond the hearing timeframe for this project.

3.3.3 Applicable Local Plans and Policies

The project site is located in the Las Positas Valley within the jurisdictional boundary of the County of Santa Barbara, with the exception of one small parcel which is already located within the City of Santa Barbara. The project includes annexation of the project site into the City of Santa Barbara. The southern half of the project site (and the main parcel) is located within the Coastal Zone. The applicable plans for the project include the City's Local Coastal Plan and General Plan. In addition, the policies in the State Coastal Act are also applicable. The consistency of the proposed project with goals and policies related to biological resources is evaluated below. The final determination of potential consistency will be made by the Planning Commission and City Council.

Coastal Act and Local Coastal Plan policies apply only to portions of the project ~~site~~ within the coastal zone. The southern portion of the proposed project is within the coastal zone (see Figure 3-12b). The Coastal Commission and City may consider impacts in the coastal zone due to portions of the project outside the coastal zone (i.e., the proposed bridge), but may not deny a permit or ~~condition it~~ a project based on project-related impacts outside the coastal zone.

Coastal Act Policies

> ***Policy 30231.*** *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Those portions of the proposed project within the coastal zone are potentially consistent with this policy because the applicant would protect the sensitive resources at the project site (i.e., Arroyo Burro Creek and the associated aquatic and riparian habitats) by the proposed creek setbacks and the proposed riparian habitat restoration. In addition, recommended mitigation measures would further protect water quality in the creek and riparian habitats along the creek. The proposed project, with

mitigation, would avoid significant impacts to those portions of the creek and riparian habitats in the coastal zone and would ensure the~~ir~~ continued productivity of these habitats if the proposed creek restoration is fully and successfully implemented.

> ***Policy 30236****. Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.*

Within the Coastal Zone,~~The portions of~~ Arroyo Burro Creek ~~in the coastal zone~~ would only be altered for the purposes of bank stabilization and restoration. The purpose of the bank stabilization is to reduce erosion and increase flood protection in the area. Theses alterations, therefore, are allowed under Section 30236 as long as no other less environmentally damaging alternatives for flood control exist and mitigation measures are employed to reduce any potential impacts to creek resources. As described previously in this chapter, the proposed project, as mitigated, would improve creek and riparian habitats in the area. Additionally, the bank stabilization is designed to minimize, to the extent feasible, the use of rip rap and other hard structures that could potentially impact the biological resources of the creek. Therefore, no other less environmentally damaging alternatives exist. The project, as mitigated, is therefore consistent with Policy 30236.

> ***Policy 30240.*** *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Within the Coastal Zone, t~~T~~he proposed project ~~in the coastal zone~~ includes two project elements in an environmentally sensitive habitat area (ESHA) –the pedestrian path and habitat restoration in the creek corridor. The construction of the pedestrian path and the restoration of the creek corridor (involving about 4.8 acres) would not significantly disrupt the habitat values of Arroyo Burro Creek. The proposed creek restoration could result in higher habitat values along the creek if it is implemented with the EIR mitigation measures and is successful. Additionally, creek restoration and pedestrian paths can be considered uses that are dependent on the environmentally sensitive habitat in the area.

The bridge proposed as part of the project is located outside of the coastal zone on the northern portion of the site. The proposed bridge would, therefore, not directly impact riparian resources in the coastal zone. However, the proposed bridge could potentially restrict wildlife movement and increase habitat fragmentation of the lower Arroyo Burro watershed, the southern portion of which is located in the coastal zone. Based on these considerations, it is possible that the proposed project could be potentially inconsistent with this policy.

City Local Coastal Plan – Water and Marine Environment: Creek Environments

> ***Policy 6.8.*** *The riparian resources, biological productivity, and water quality of the City's coastal zone creeks shall be maintained, preserved, enhanced, and, where feasible, restored.*

The portions of the proposed project within the coastal zone are potentially consistent with this policy because the applicant would protect the sensitive resources at the project site (i.e., Arroyo Burro Creek and the associated aquatic and riparian habitats) by the proposed creek setbacks and the proposed riparian habitat restoration. In addition, recommended mitigation measures would further protect water quality in the creek and riparian habitats along the creek. The proposed project, with mitigation, would avoid significant impacts to those portions of the creek and riparian habitats in the coastal zone and would ensure their continued productivity of these habitats if the proposed creek restoration is fully and successfully implemented.

The bridge proposed as part of the project is located outside of the coastal zone on the northern portion of the site. The proposed bridge would, therefore, not directly impact riparian resources in the coastal zone. However, the proposed bridge could potentially restrict wildlife movement and increase habitat fragmentation of the lower Arroyo Burro watershed, the southern portion of which is located in the coastal zone. Therefore, the proposed bridge may indirectly impact wildlife in the coastal zone and could be inconsistent with the first element of ~~the~~ Policy 6.8 (*The biological productivity… shall be maintained.).*

> ***Policy 6.10.*** *The City shall require a setback buffer for native vegetation between the top of the bank and any proposed project. This setback will vary depending upon the conditions of the site and the environmental impact of the proposed project.*

The analysis in the EIR concluded that the proposed creek setbacks, coupled with the EIR mitigation measures, dedicated creek corridor open space, and proposed riparian habitat restoration, would be adequate to protect creek resources and avoid significant impacts. Hence, the project is potentially consistent with this policy.

> ***Policy 6.11.*** *Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) Necessary water supply projects; (2) Flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or; (3) Developments where the primary function is the improvement of fish and wildlife habitat.*

The portions of Arroyo Burro Creek in the coastal zone would only be altered for the purposes of bank stabilization, the pedestrian path, and restoration. The purpose of the bank stabilization is to reduce erosion and increase flood protection in the area. Theses alterations, therefore, are allowed under Policy 6.11 as long as no other less environmentally damaging alternatives for flood control exist and mitigation measures are employed to reduce any potential impacts to creek resources. As described previously in this chapter, the proposed project, as mitigated, would improve creek and riparian habitats in the area. Additionally, the bank stabilization is designed to minimize, to the extent feasible, the use of rip rap and other hard structures that could potentially impact the biological resources of the creek. The project, as mitigated, is therefore consistent with Policy 6.11.

Conservation Element – Biological Resources

Goal: *Enhance and preserve the City's critical ecological resources in order to provide a high-quality environment necessary to sustain the City's ecosystem.*

The proposed project is potentially consistent with this goal because, with mitigation, it would protect and enhance the most sensitive biological resource at the project site - Arroyo Burro Creek.

Policy 4. *Remaining coastal perennial grassland and southern oak woodland shall be preserved, where feasible.*

The proposed project is potentially consistent with this policy because impacts to oak woodland and oak trees have been minimized, and the unavoidable loss of other oak trees would be fully offset by oak tree replacement planting.

Policy 5. *The habitats of rare and endangered species shall be preserved.*

The proposed project is potentially consistent with this policy because it would not cause any direct or indirect impacts to threatened or endangered species with implementation of mitigation measures.

3.3.4 Mitigation Measures

BIO-1 The proposed native habitat restoration plans shall be modified as follows to ensure the successful long-term establishment of new and enhanced native habitats at the project site, including the creek corridor restoration, upland habitat restoration in Lots 26, 27, 28, and 31, based on current design, and creek bank repair and restoration sites. A comprehensive habitat restoration plan for these project elements shall be submitted to the Community Development Department and the Parks & Recreation Department (Creeks Division) for review and approval prior to incorporation into the final grading and landscaping plans to be submitted to the Building Department for final review and approval. The comprehensive habitat restoration plan shall include the following elements (among others):

- Precise restoration objectives for each habitat type and location
- Detailed schedule of tasks and milestones for site preparation, planting, and maintenance
- Plans that show grading and soil preparation, and any areas that will require slope stabilization or temporary erosion control
- Description of specific habitat types to be restored, including species list and relative abundance in each habitat type, as well as planting densities and propagation methodologies
- Plans that show the boundaries of each habitat type to be restored, with precise acreages and plant densities
- Description of source of plant materials, with a commitment to utilize plant material from the South Coast region, and preferably from the Las Positas Valley

- Performance criteria that include survivorship, percent native plant cover, percent noxious weed cover, and percent naturalized species cover
- Plans and explanations that show how the non-native landscaping at the project site associated with the individual lots will interface with the native plant restoration in the upland and riparian open space areas
- A description of a watering approach to ensure successful plant establishment and long-term productivity, including methods to provide supplemental water
- A description of the weed management approach, emphasizing site preparation and watering methods that do not encourage weed growth and use of herbicides that is consistent with the City's adopted Integrated Pest Management (IPM) plan
- A long-term rodent management plan that avoids or greatly reduces the use of pesticides or poisons
- Plans and a description of the how the habitat restoration plans will incorporate fire hazard requirements for defensible space near structures and fire-safe vegetation, while still achieving habitat restoration goals
- Plans and a description of how to establish and maintain riparian habitats in the creek corridor open space with ongoing public uses along the pedestrian path
- Plans and calculations for any proposed bank stabilization shall include an evaluation of hydraulic and geomorphologic factors along the creek, such as flow velocities, sediment carrying capacity, bank failure modes, and shear stress factors as described in Mitigation Measure W-2.

The plan may include non-native ornamental trees in selected portions of the hillside and central open space areas for aesthetic reasons, provided the number of these locations is low and the non-native trees would not displace native plants over time.

The plan shall also include a maintenance and monitoring program to be implemented by the homeowner's association with a description of the authority and mechanism to secure sufficient funding to ensure long-term success. The program must be a minimum of 5-years or until performance criteria are achieved and there must be an ongoing program to ensure that the invasive giant reed or other highly invasive species are kept under control consistent with performance criteria perpetually.

The plan would apply to portions of the City-owned parcel on the east side or Arroyo Burro Creek. Hence, the restoration approach and plan for this element of the project shall be approved by the City Parks and Recreation Department. The applicant shall maintain the restoration areas on City property for a minimum of 5-years or until the performance criteria have been achieved, at which time the City will assume responsibility for maintenance.

BIO-2 Oak trees to be removed shall be replaced at a 10:1 ratio at the project site. The replacement trees shall range in size from one gallon to 15-gallon trees. Planting locations shall be appropriate for oak trees, as determined by the arborist or restoration ecologist, and included

in the comprehensive habitat restoration plan. The number of oak trees to be removed shall be confirmed on the final plans. The plans shall include oak and riparian tree protection drawings and specifications with the following requirements:

- Prior to grading, temporary protective fencing (4 feet high) shall be installed three feet outside the dripline of all oak and riparian trees to be preserved. Fencing shall be maintained during the entire construction period.
- Heavy equipment shall not be used or parked within three (3) feet of oak tree driplines, except where approved by a qualified arborist, and after protective fencing has been installed.
- Soil, rocks, or construction material shall not be stored or placed within the dripline of oak trees.

BIO-3 The area of temporary disturbance associated with installation of the bridge over Arroyo Burro Creek shall be minimized to the maximum extent feasible. The limit of temporary disturbance upstream and downstream of the bridge shall not exceed 25 feet. All disturbed areas shall be restored with native riparian trees and shrubs. The disturbed banks shall be stabilized, as necessary, with bio-technical methods to prevent post-construction erosion. Native perennial plants that are tolerant of shade shall be planted under the bridge span. To the extent feasible, tall riparian trees shall be planted that will grow adjacent to the edge of the bridge and provide cover for wildlife.

BIO-4 To partially offset the permanent habitat losses at the bridge site, the ~~open space~~ disturbed area ~~north of the entrance road and south of Lots 11 and 12 and the area between Las Positas Road and the creek from the bridge to the condominiums~~ created by construction of the bridge abutment shall be restored to a native oak-riparian area dedicated to wildlife habitat, particularly riparian breeding birds and raptors. The restoration of this site shall be included in the comprehensive native habitat restoration plan for the proposed project (see Mitigation Measure BIO-1).

BIO-5 Phase 1 grading and earthwork within 100 feet of the outer edge of the existing riparian corridor (as mapped in the EIR) shall not occur during the period 1 March through 15 July in order to avoid disturbance to breeding birds. Prior to removal of any oak, eucalyptus, or native riparian tree, a qualified biologist shall carefully examine the tree to determine that no active bird nests are present. If a nest is located, tree removal shall be delayed until all chicks have fledged.

BIO-6 The limits of disturbance in areas with native or naturalized vegetation shall be minimized to the extent feasible. Limits of clearing and grubbing, grading, and vehicular access shall be marked at the site with orange exclusion fencing.

BIO-7 The following measures shall be implemented to reduce impacts of residential development on riparian resources in the creek:

- The lowest output lighting permissible on all roadways and common areas of the development shall be used. All street and common lighting shall be shielded so that stray

light effects are minimized, and to avoid direct illumination of the riparian corridor, except as needed for public safety. Decorative night lights shall not be directed into trees within the riparian restoration area.

- The pedestrian path in the creek open space corridor shall be sited to provide views and an aesthetic enjoyment of the creek environment. However, the alignment of the path shall not substantially interfere with the primary objective of providing wildlife habitat and native plant cover along the creek corridor. The path shall also include interpretative signs informing the public of the sensitive resources in the creek, and asking the public to refrain from entering the creek channel, or letting pets enter the channel. The final design for the creek open space shall also include a consideration of low-profile fencing to prevent access to the top of the creek bank or in sensitive habitat areas.

- The proposed gazebo to be located along the pedestrian path shall be situated as far as possible from the creek (a minimum of 50 feet), and the location shall be selected to minimize impacts to riparian resources.

- The proposed homeowners association shall prepare and implement (with long-term funding assurances) a habitat maintenance and management plan for the four open space areas at the project site: Lot 27 (hillside open space), Lot 31 (central open space with tributary drainage channel), and Lots 26 and 28 (creek corridor with pedestrian path). The plan shall incorporate the principles, methods, and approach of the City's Integrated Pest Management (IPM) Plan (as it is revised and updated in the future) in order to minimize the use of pesticides and herbicides for landscape maintenance to the extent feasible. The plan shall include measures to monitor and remove the amount and extent of non-native invasive plants, particularly ensuring ongoing control of the aggressive giant reed; maintain the riparian plantings in good health; and contingency plans for replacement planting. It shall also include measures to monitor and manage public access to prevent unanticipated impacts to riparian and aquatic habitats in the creek from public uses. Violations shall be strictly enforced and citable, using the City's Administration Program or other appropriate methods.

BIO-8 The width of the proposed bridge shall be reduced by only including a sidewalk on one side, if this modification does not create unsafe conditions for pedestrians and bicyclists, as determined by the City Transportation Division.

BIO-9 The bridge design and/or materials shall be modified to minimize the effects of vehicle noise on the adjacent riparian habitat. Possible design modifications could include eliminating openings along the bridge or using road surface materials that reduce wheel noise, and installing wildlife crossing signs and speed bumps.

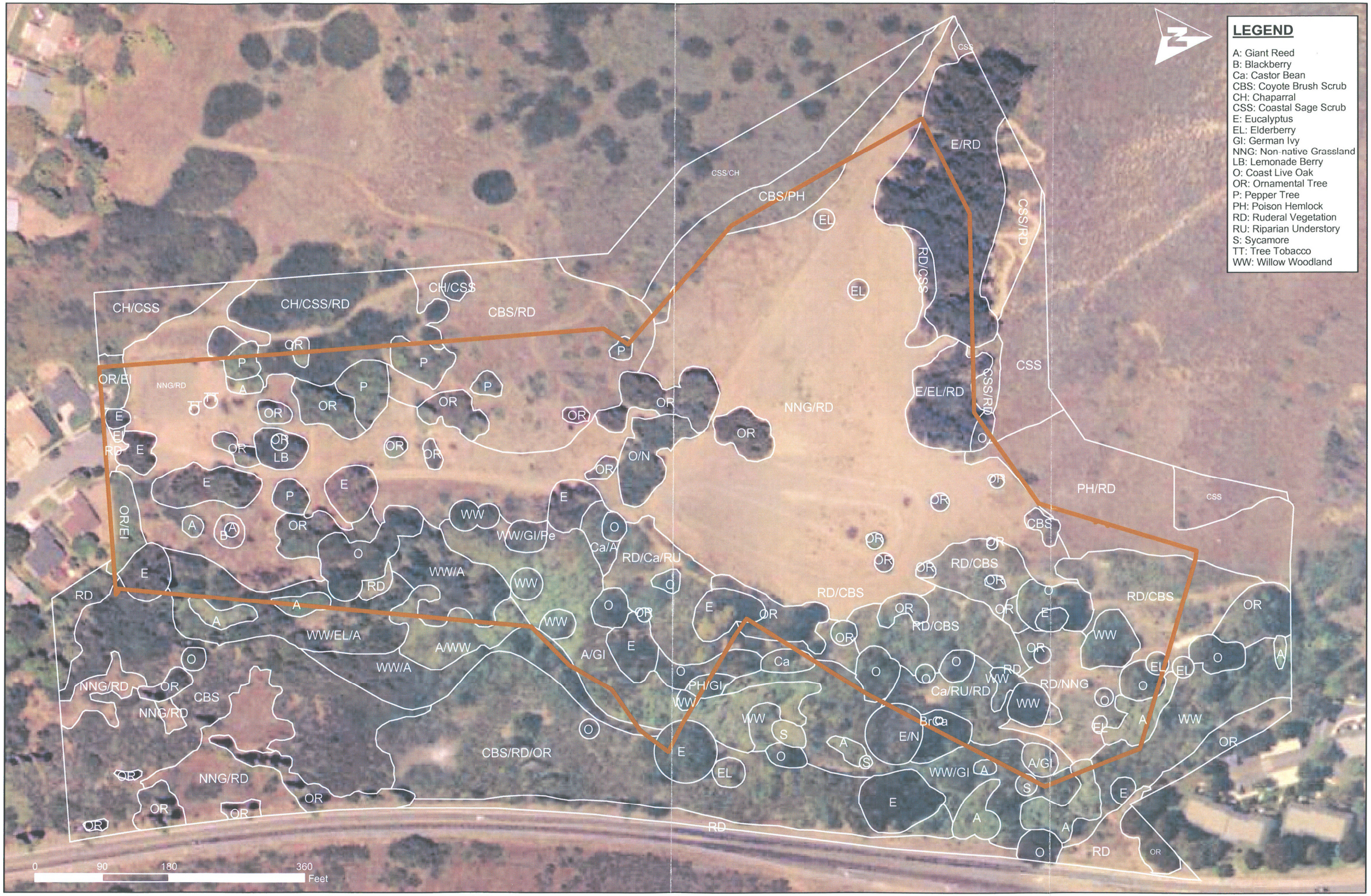

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Figure 3-11. Vegetation Types at the Project Site

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Figure 3-12a. Aquatic Habitats on Arroyo Burro

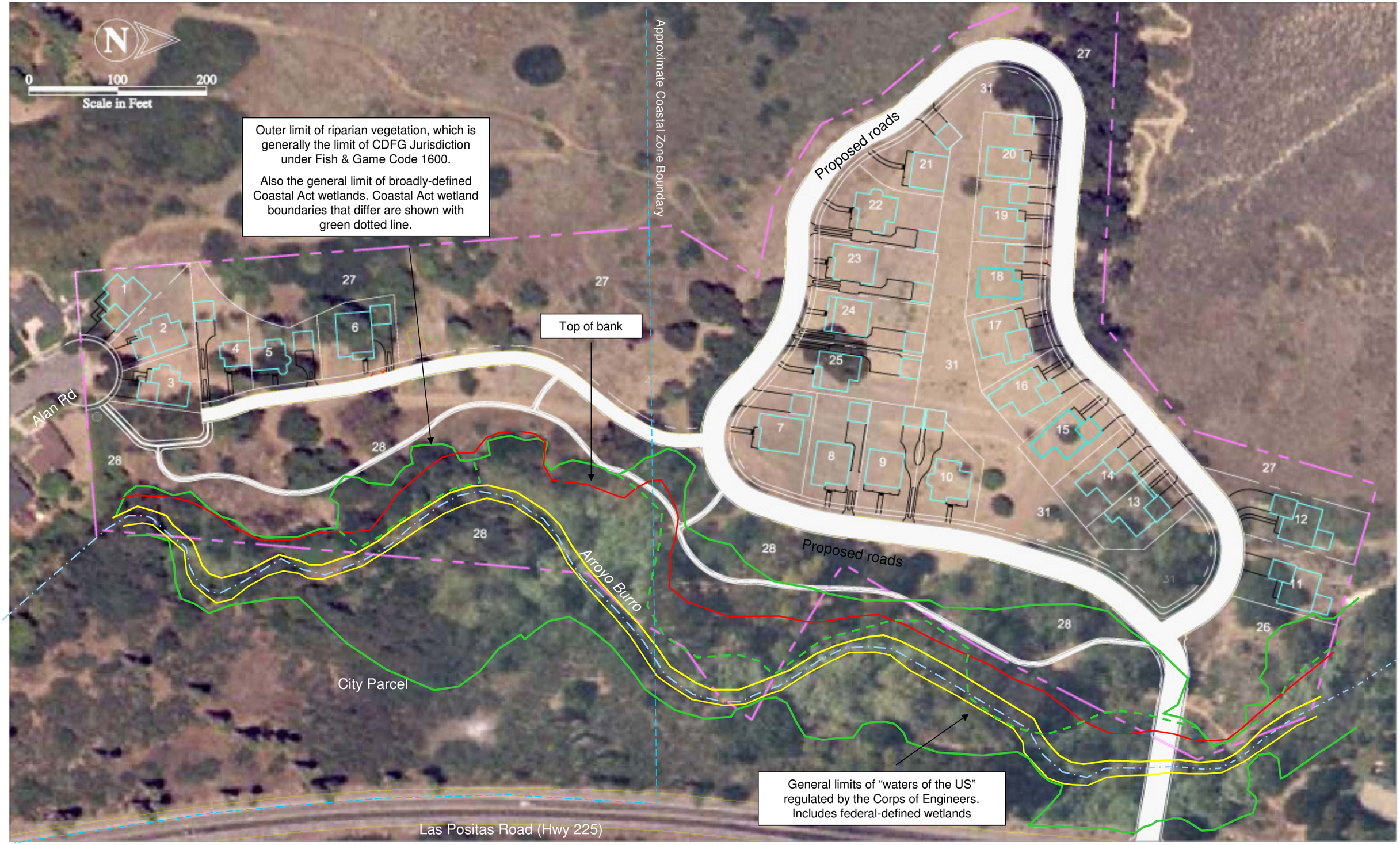


Figure 3-12b. Wetland Habitats along Arroyo Burro Creek

(Based on Current 2008 Project design)

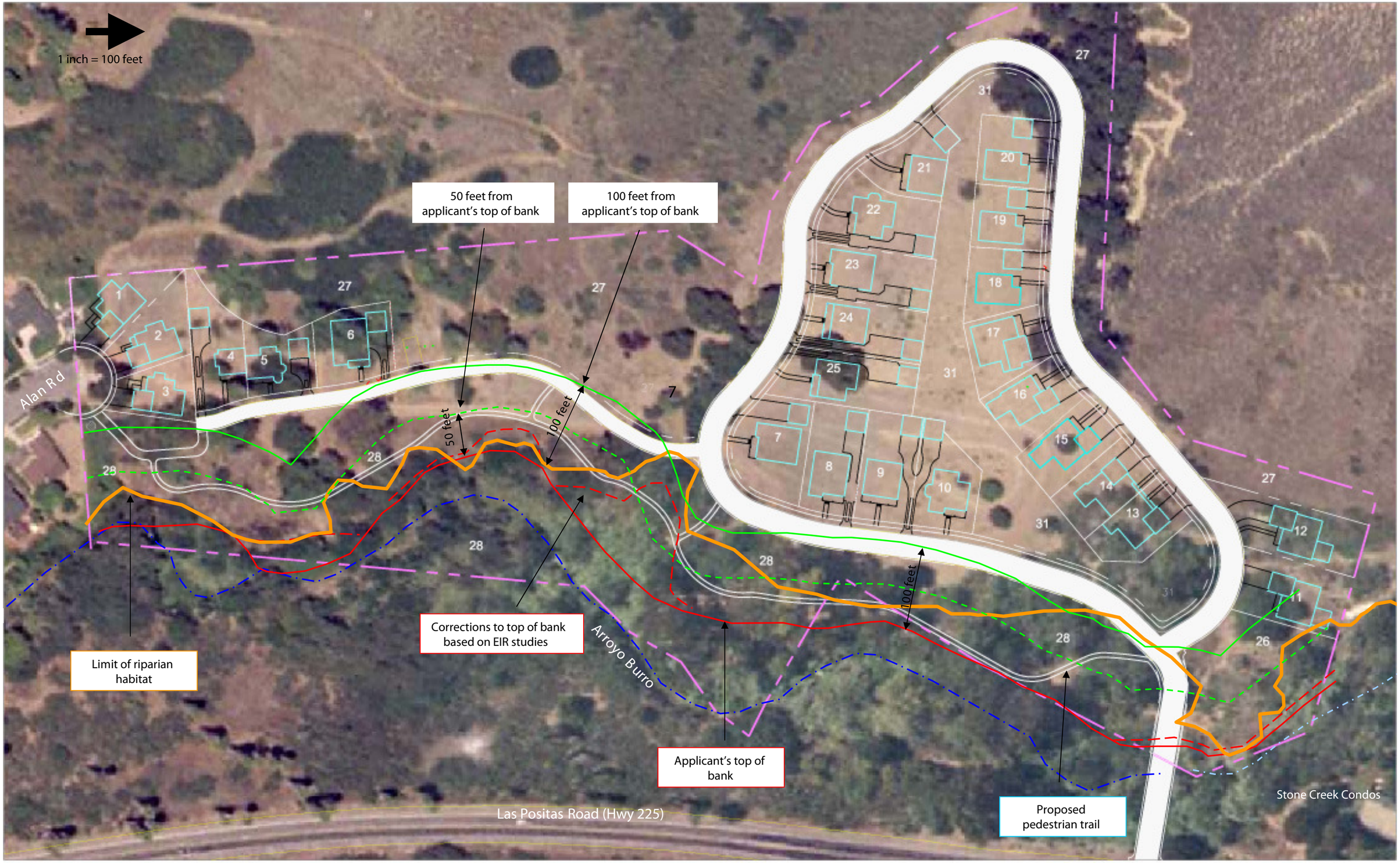


Figure 3-13. Proximity of Proposed Development to the Creek
(Based on Current 2008 Project design)

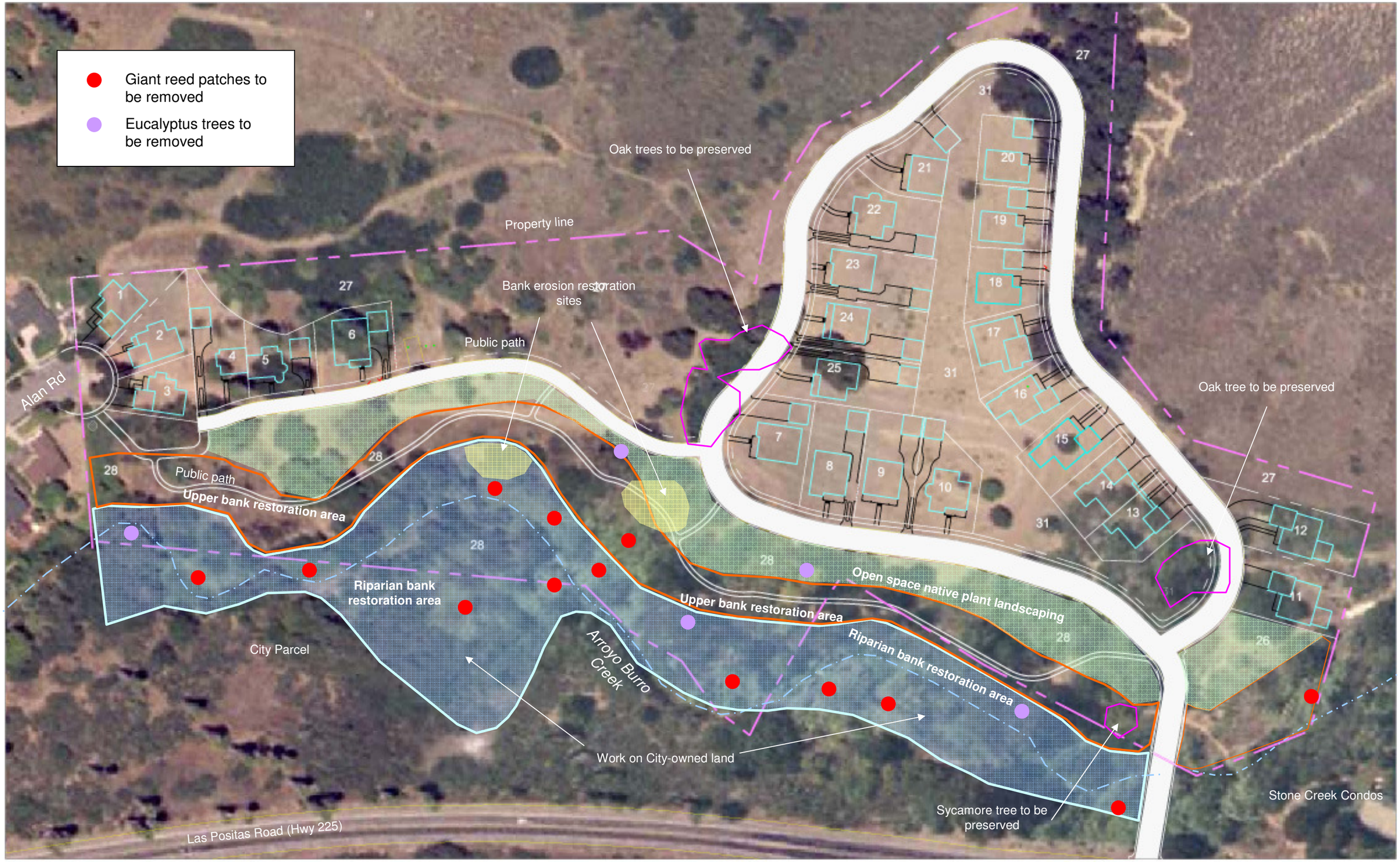


Figure 3-14. Extent of Proposed Creek Corridor Restoration

(Based on Current 2008 Project design)

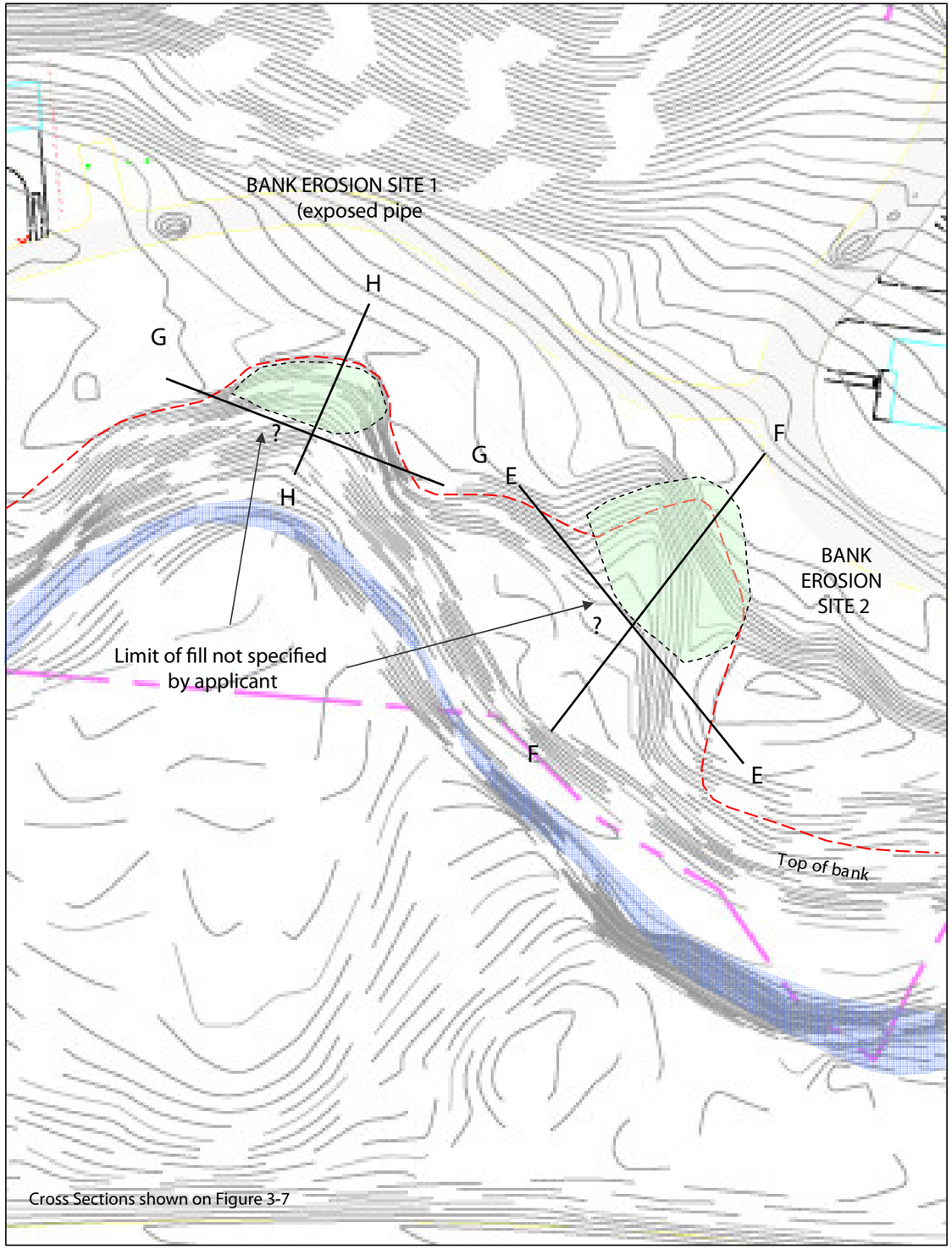
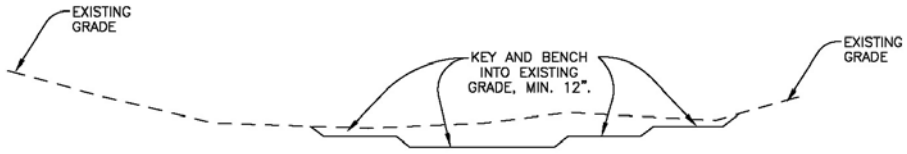
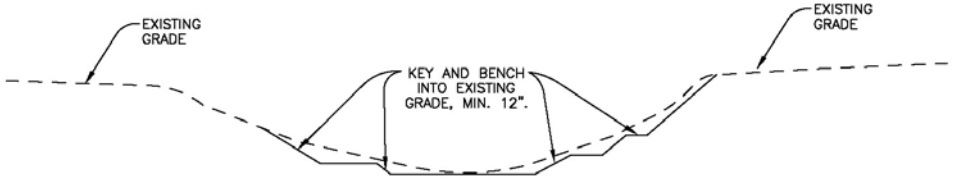


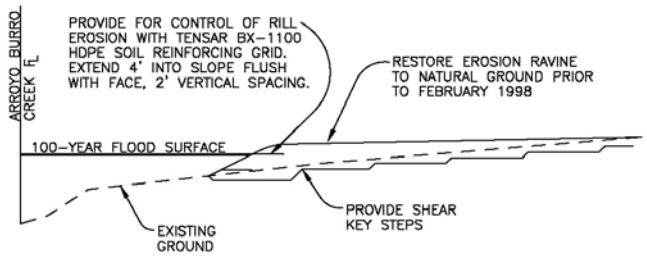
Figure 3-6. Proposed Creek Bank Restoration
(Based on Current 2008 Project design)



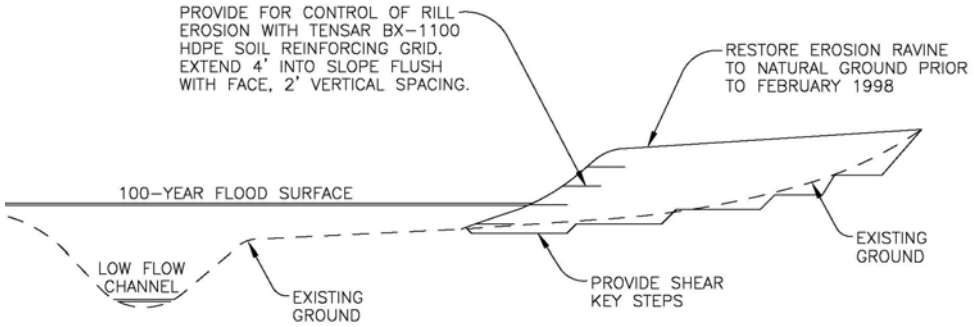
PROPOSED CREEK BANK PROTECTION
SECTION E–E
SCALE: N.T.S.



PROPOSED CREEK BANK PROTECTION
SECTION G–G
SCALE: N.T.S.



PROPOSED CREEK BANK PROTECTION
SECTION F–F
SCALE: N.T.S.



PROPOSED CREEK BANK PROTECTION
SECTION H–H
SCALE: N.T.S.

Cross sections shown on Figure 3-6

Figure 3-7. Cross Sections of Proposed Creek Bank Restoration